Research Department
Federal Reserve
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May 21, 1982

FRBSF Weekly Letter

Interest Rates—How Much Is Real?(II)

In our last *Weekly Letter*, we began an evaluation of financial-market developments in an attempt to determine how the markets view high long-term interest rates—in terms of high inflation expectations or high real rates. Specifically, we showed that the stock yield (dividend over stock price) is a reasonable measure of the real rate of return on corporate equities, just as the bond yield is a good measure of the nominal rate of return on corporate debt. One would expect the real return on equities to be higher than the real return on debt, because stockholders face more business-cycle risks than bondholders. However, other supply and demand factors affecting real interest rates would be the same in both markets.

Stock yields have been remarkably stable over the 1978-82 period, and this suggests relative stability in *real* bond yields, although *nominal* bond yields have risen dramatically (Chart 1). With stable real yields, the rise in nominal bond yields must primarily reflect a rise in long-run inflation expectations. But why have inflation expectations risen in the face of the decelerating inflation of the 1981-82 period—and in the face of a relatively restrictive monetary policy? The answer is that long-run inflation expectations depend upon what people expect the actual rate of inflation to be over the next 5 to 15 years—which in turn depends on their expectations of future monetary policy and money growth.

Debt growth vs. money growth

Financial markets apparently fear that future money growth will be substantially higher than current policy might suggest, mainly because of the projected sharp upsurge in Treasury financing needs. There has been a close assocation between the trend growth in the national debt and the trend growth in the money stock since World War II (Chart 2)—and incidentally, the relationship was even closer during that war period. The trend relationship has broken down only in a few individual years. In 1975-76 the debt surged with low money growth because of the double impact of an unprecedented recession and a unique one-time decline in money demand. In 1980-81 the relationship broke down because of changed Federal Reserve operating procedures which improved monetary control (see below). The national debt and the money stock both grew slowly during the 1948-65 period, but both then accelerated during the 1965-81 period. And specifically, during the 1977-79 period, the money stock accelerated substantially to an 8-percent average growth rate—only slightly below the 9-percent average growth of the national debt and well above the 5¼-percent mid-point of the Federal Reserve's average target range for money growth.

Despite this long-term relationship between debt and money, the link between long-run inflation expectations (and thus bond yields) and national-debt growth became established only in the past several years. Financial markets previously had no reason to expect that large growth in the national debt in any given year would necessarily continue into the future, as could be seen from the Administration's and the Congressional Budget Office's forecasts for fiscal year 1976 through 1980 (submitted to Congress in January 1975 through January 1979). In those budget documents, the five-year-out forecast called for an average surplus of $62 billion. These forecasts included a certain degree of wishful thinking, but still were based on reasonable expectations. On the revenue side, they reflected the steep progressiveness of income-tax rates, with tax receipts generally increasing at twice the rate of growth of income. On the spending side, they reflected the belief that the growth of past and currently proposed government programs would roughly equal the growth of national income. In an environment where revenue was expected to grow twice as fast as spending,

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financial markets could not reasonably forecast a dramatic rise in future money growth based on future deficit financing, and thus long-run inflation expectations and bond yields remained unaffected.

Expectation undermined

Yet starting in January 1980 under President Carter and continuing with President Reagan, that comfortable expectation became systematically undermined. Following the Soviet invasion of Afghanistan in December 1979, President Carter's fiscal 1981 budget (submitted in January 1980) greatly increased military spending without any cutback in social programs. As a result, the five-year-out spending projections increased from 49 percent in the fiscal 1979 budget to 83 percent in the fiscal 1980 budget. This undermined the normal expectation of future budget surpluses. The bond market responded dramatically to this unexpected budget forecast, perhaps because of its resemblance to the "guns and butter" budgets of the mid-1960's, which started the upward spiral of deficits and money growth. Thus, the S&P bond yield jumped from about 10 percent just prior to the late-January budget announcement to a then-uprecedented level of 12 percent in early March. Long-term bond rates fell dramatically during the credit-control program of March-July 1980, but then resumed their upward climb, and eventually approached the earlier peak just prior to President Reagan's inauguration in January 1981.

These market pressures continued because budget balancing seemed to be relatively low on the new Administration's priority list. The three-year cut in tax rates, plus the indexing of tax rates to prevent subsequent "bracket creep," meant that tax revenues would no longer rise at twice the rate of income growth. Despite the fiscal revolution on the revenue side, the Administration was able to reduce spending growth only back to the fiscal 1979 level—and the national debt reflected that development. The Administration only belatedly acknowledged this change in its fiscal 1983 budget (submitted in January 1982). Projections five years out showed spending and revenues growing at about the same pace—49 percent and 54 percent, respectively. And for the first time, the five-year-out budget (fiscal 1987) was forecast to be in deficit.

The financial markets recognized the problem relatively early, and on the basis of past associations between deficits and money, began to forecast a substantial increase in future inflation. Thus bond yields rose from 11½ percent in January to 14 percent in July (before passage of the tax-cut bill) and then to 15½ percent in late-August 1981 (one month after passage). By April 1982, long-term rates —although declining—still averaged a near-record 14½ percent.

Real interest rates probably increased somewhat between January 1981 and April 1982—a period when bond yields rose from 11½ to 14½ percent. As one indication, stock yields rose roughly from 5 percent to 6 percent over that period. That one-percentage-point increase is probably the maximum one would expect real bond yields to have risen, because at least part of the rise in *stock* yields would reflect the increased business-cycle risk inherent in the current recession. At a minimum, then, two-thirds of the rise in long-term rates would be due to a rise in inflation expectations. Financial markets thus may be telling us, not that monetary policy is now too tight, but that it may become too easy in the future and generate increased inflation.

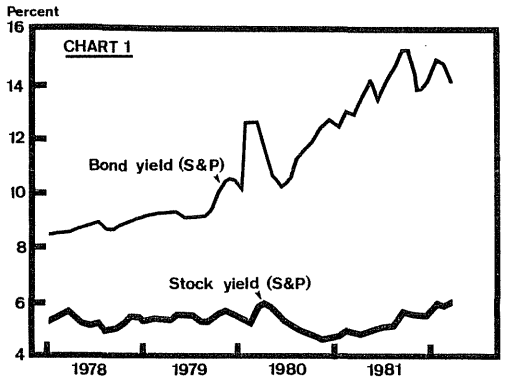
1982 vs. 1932

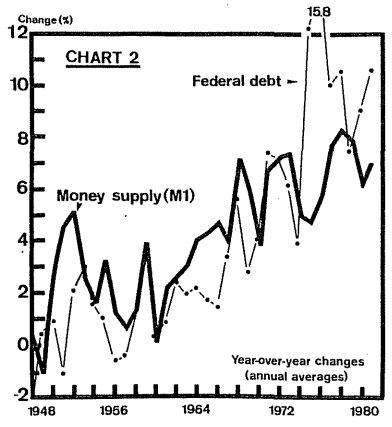
How does the current financial situation compare with that of the Great Depression? Between early 1929 and mid-1932, stock prices fell and stock yields went up dramatically from 3½ to 10 percent, reflecting the worsening of financial-market concerns about the state of the business cycle (Chart 3). On the other hand, long-term bond yields remained stable, suggesting that any decline in long-run inflation expectations was matched by a rise in real interest rates. (There was no major increase in default risk until late

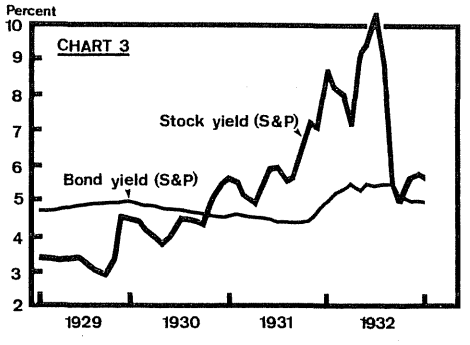
1931, when bond yields rose from 4½ percent to 5½ percent.) The combination of stability in bond yields and rise in stock yields suggested an overly tight monetary policy, which then led to a tremendous increase in business-cycle risks. In retrospect, most analysts now believe that an excessively tight monetary policy was a major contributor to the severity of the Depression, as reflected in the one-third decline in the money supply between 1929 and 1933.

What does this analysis suggest for the current debate about high interest rates and the correct monetary/fiscal policy mix? High long-term interest rates can be attributed largely to the exceptionally large deficits expected over the next four to five years. The most direct way to reduce those rates—to break long-term inflation expectations—is to reduce the deficits through a comprehensive program of tax increases and spending decreases. A second way is to break the past link between money and deficits, which still continues to exist in the minds of financial-market participants today. Japan and other countries have been able to break that link, and there is no reason to assume the United States cannot do so also. Indeed, the Federal Reserve's October 1979 change in operating procedures was designed, among other things, to break the link between deficits and money by improving the probability of the Fed's hitting its money-supply targets. The Federal Reserve's success in that regard thus will gradually improve the Fed's credibility; but it may take several years of successful resistance to monetizing deficits for that policy to reduce long-term interest rates significantly. On balance, the only way to reduce rates quickly is to reduce the market's fear of a monetary explosion by cutting the size of the deficit.

Michael W. Keran







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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 5/5/82	Change from 4/28/82	Change from year ago Dollar	Change from year ago Percent
Loans (gross, adjusted) and investments*	159,662	119	10,506	7.0
Loans (gross, adjusted) — total #	138,798	239	11,793	9.3
Commercial and industrial	43,152	499	5,283	14.0
Real estate	57,152	20	5,082	9.8
Loans to individuals	23,420	− 84	523	2.3
Securities loans	2,122	− 224	466	28.1
U.S. Treasury securities*	6,029	15	− 444	− 6.9
Other securities*	14,835	− 135	− 822	− 5.3
Demanddeposits — total#	39,888	2,626	− 1,491	− 3.6
Demand deposits — adjusted	26,703	9	− 2,230	− 7.7
Savingsdeposits — total	30,848	447	301	1.0
Time deposits — total#	92,484	539	14,161	18.1
Individuals, part. & corp.	82,953	366	13,977	20.3
(Large negotiable CD's)	33,920	33	2,861	9.2

Weekly Averages of Daily Figures	Week ended 5/5/82	Week ended 4/28/82	Comparable year-ago period
Member Bank Reserve Position			
Excess Reserves (+)/Deficiency (−)		102	38
Borrowings		105	56
Net free reserves (+)/Net borrowed(−)		− 3	− 19

* Excludes trading account securities.

Includes items not shown separately.

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